AP 42, Section 7.1 (incorporated by reference, see § 98.7), or Equation Y–22 of this section).

(ii) The total quantity (in MMbbl) of crude oil plus the quantity of intermediate products received from off site that are processed at the facility in the reporting year.

(3) The cumulative CH_4 emissions (in metric tons of CH_4) for storage tanks used to process unstabilized crude oil or a statement that the facility did not receive any unstabilized crude oil during the reporting year.

(4) For storage tanks that process unstabilized crude oil:

(i) The method used to calculate the reported unstabilized crude oil storage tank emissions.

(ii) The quantity of unstabilized crude oil received during the calendar year (in MMbbl).

(iii) The average pressure differential (in psi).

(iv) The molar volume conversion factor (in scf/kg-mole).

(v) The average mole fraction of CH_4 in vent gas from unstabilized crude oil storage tanks and the basis for the mole fraction.

(vi) If you did not use Equation Y–23, the tank-specific methane composition data and the gas generation rate data used to estimate the cumulative CH_4 emissions for storage tanks used to process unstabilized crude oil.

(5) The method used to calculate the reported storage tank emissions for storage tanks processing unstabilized crude oil.

(6) The quantity of unstabilized crude oil received during the calendar year (in MMbbl), the average pressure differential (in psi), and the mole fraction of CH_4 in vent gas from the unstabilized crude oil storage tank, and the basis for the mole fraction.

(7) The tank-specific methane composition data and the gas generation rate data, if you did not use Equation Y–23.

(p) For loading operations, the owner or operator shall report:

(1) The cumulative annual CH_4 emissions (in metric tons of each pollutant emitted) for loading operations.

(2) The quantity and types of materials loaded by vessel type (barge, tanker, marine vessel, etc.) that have an equilibrium vapor-phase concentration of methane of 0.5 volume percent or greater, and the type of vessels in which the material is loaded.

(3) The type of control system used to reduce emissions from the loading of material with an equilibrium vapor-phase concentration of methane of 0.5 volume percent or greater, if any (submerged loading, vapor balancing, etc.).

(q) Name of each method listed in § 98.254 or a description of manufacturer's recommended method used to determine a measured parameter.

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 79164, Dec. 17, 2010]

§ 98.257 Records that must be retained.

In addition to the records required by § 98.3(g), you must retain the records of all parameters monitored under § 98.255. If you comply with the combustion methodology in § 98.252(a), then you must retain under this subpart the records required for the Tier 3 and/or Tier 4 Calculation Methodologies in § 98.37 and you must keep records of the annual average flow calculations.

[75 FR 79166, Dec. 17, 2010]

§ 98.258 Definitions.

All terms used in this subpart have the same meaning given in the Clean Air Act and subpart A of this part.

Subpart Z—Phosphoric Acid Production

§ 98.260 Definition of the source category.

The phosphoric acid production source category consists of facilities with a wet-process phosphoric acid process line used to produce phosphoric acid. A wet-process phosphoric acid process line is the production unit or units identified by an individual identification number in an operating permit and/or any process unit or group of process units at a facility reacting phosphate rock from a common supply source with acid.

§ 98.261 Reporting threshold.

You must report GHG emissions under this subpart if your facility contains a phosphoric acid production

process and the facility meets the requirements of either § 98.2(a)(1) or (a)(2).

§ 98.262   GHGs to report.

(a) You must report CO_2 process emissions from each wet-process phosphoric acid process line.

(b) You must report under subpart C of this part (General Stationary Fuel Combustion Sources) the emissions of CO_2, CH_4, and N_2O from each stationary combustion unit following the requirements of subpart C of this part.

§ 98.263   Calculating GHG emissions.

You must calculate and report the annual process CO_2 emissions from each wet-process phosphoric acid process line using the procedures in either paragraph (a) or (b) of this section.

(a) Calculate and report under this subpart the process CO_2 emissions by operating and maintaining a CEMS according to the Tier 4 Calculation Methodology specified in § 98.33(a)(4) and all associated requirements for Tier 4 in subpart C of this part (General Stationary Fuel Combustion Sources).

(b) Calculate and report under this subpart the process CO_2 emissions using the procedures in paragraphs (b)(1) and (b)(2) of this section.

(1) Calculate the annual CO_2 mass emissions from each wet-process phosphoric acid process line using the methods in paragraphs (b)(1)(i) or (ii) of this section, as applicable.

(i) If your process measurement provides the inorganic carbon content of phosphate rock as an output, calculate and report the process CO_2 emissions from each wet-process phosphoric acid process line using Equation Z–1a of this section:

$$E_m = \sum_{i=1}^{b} \sum_{n=1}^{z} \left(IC_{n,i} * P_{n,i} \right) * \frac{2000}{2205} * \frac{44}{12} \qquad \text{(Eq. Z-1a)}$$

Where:

E_m = Annual CO_2 mass emissions from a wet-process phosphoric acid process line m according to this Equation Z–1a (metric tons).

$IC_{n,i}$ = Inorganic carbon content of a grab sample batch of phosphate rock by origin i obtained during month n, from the carbon analysis results (percent by weight, expressed as a decimal fraction).

$P_{n,i}$ = Mass of phosphate rock by origin i consumed in month n by wet-process phosphoric acid process line m (tons).

z = Number of months during which the process line m operates.

b = Number of different types of phosphate rock in month, by origin. If the grab sample is a composite sample of rock from more than one origin, b = 1.

2000/2205 = Conversion factor to convert tons to metric tons.

44/12 = Ratio of molecular weights, CO_2 to carbon.

(ii) If your process measurement provides the CO_2 emissions directly as an output, calculate and report the process CO_2 emissions from each wet-process phosphoric acid process line using Equation Z–1b of this section:

$$E_m = \sum_{i=1}^{b} \sum_{n=1}^{z} \left(CO_{2_{n,i}} * P_{n,i} \right) * \frac{2000}{2205} \qquad \text{(Eq. Z-1b)}$$

Where:

E_m = Annual CO_2 mass emissions from a wet-process phosphoric acid process line m according to this Equation Z–1b (metric tons).

$CO_{2n,i}$ = Carbon dioxide emissions of a grab sample batch of phosphate rock by origin i obtained during month n (percent by weight, expressed as a decimal fraction).